

SP-14678N
200864002

3230 LAWSON BLVD., OCEANSIDE, NEW YORK 11572

E-mail: info@lndinc.com • WEB SITE: <http://www.lndinc.com>
1-516-678-6141 • FAX 1-516-678-6704

March 25, 2008

Associate Administrator for Hazardous Materials Safety
Pipeline and Hazardous Materials Safety Administration
U.S. Department of Transportation
400 7th Street, SW
Washington, DC 20590-0001

Attention: Special Permits, PIH-31

Applicant: LND, Incorporated, 3230 Lawson Boulevard, Oceanside, NY 11572. Email: slbn@lndinc.com. Telephone: 516-678-6141. Contact: Spencer B. Neyland, Physicist/Operations Manager.

Manufacturing Facility: LND, Incorporated, 3230 Lawson Boulevard, Oceanside, NY 11572.

LND is requesting a modification to our special permit 12087 for a one-time shipment.

Battelle Pacific Northwest National Laboratory has 61 Boron trifluoride containing neutron detectors manufactured by LND in the early 1970's that they would like to ship back to LND for disposal. LND's Special Permit 12087 covers Boron trifluoride filled radiation sensors with fill pressures up to 3 PSIG; however, the detectors in question have a fill pressure of 14 PSIG.

I have included the design specifications for the LND detector tubes. The minimum burst pressure is 1500 PSIG, so there is a large safety factor in terms of pressure containment. Furthermore, these detectors continue to operate after more than 35 years without failure of their hermetic integrity. The total amount of BF₃ in each tube is approximately 1 gram.

We are proposing the use of three, 20 gallon Poisonous by Inhalation (PIH) drums (1A2/X175/S) for the shipment of these detectors. Each drum would contain approximately 20 grams of boron trifluoride and would contain any gas if there were a leak from the detectors during transport. Moreover, the size of the drum in relation to the gas volumes is such that there would be negligible rises in pressure if the gas were to leak out of the detectors. The shipment would be by ground from:

Battelle PNNL
329 Building, 300 Area
Richland, WA 99352

DEPT OF TRANSPORTATION
DOCKETS
2008 APR -7 P. 3:45

PHMSA-2008-0001

IN-HMES

14678D

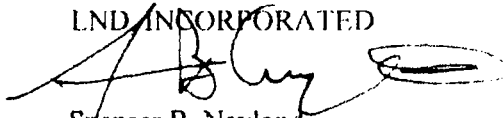
To:

LND, Inc.
3230 Lawson Blvd.
Oceanside, NY 11572

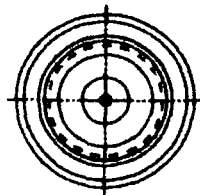
Thank you for your consideration of this application.

Sincerely,

LND INCORPORATED

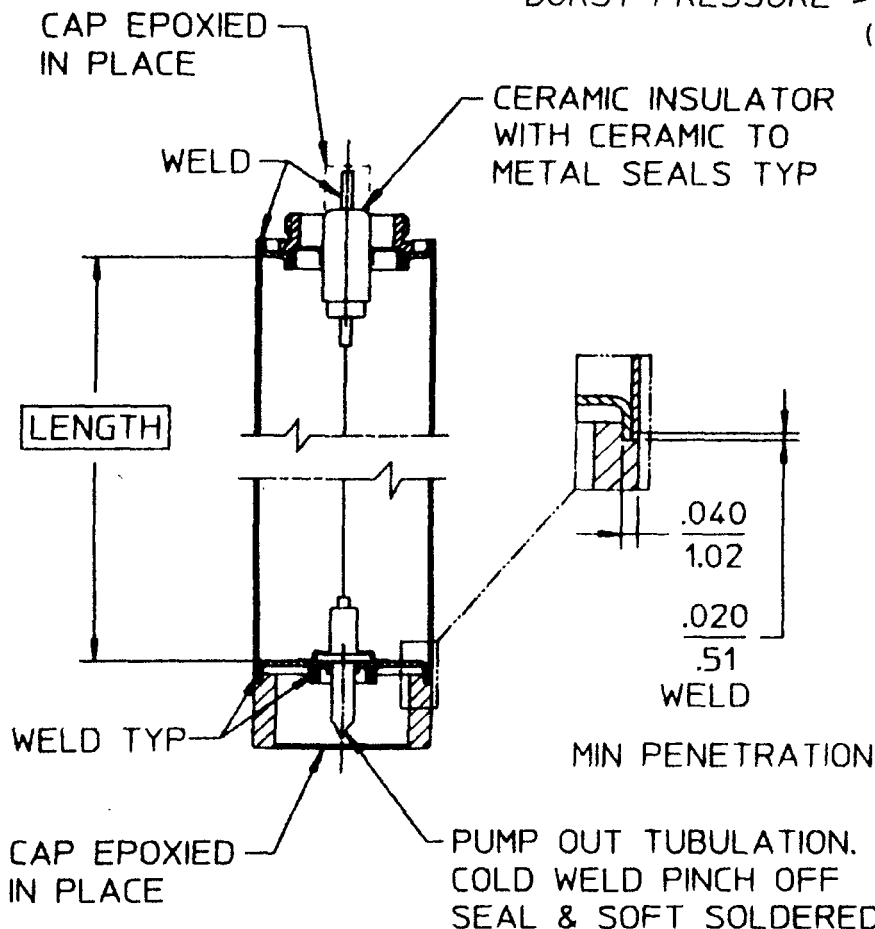
A handwritten signature in black ink, appearing to read "Spencer B. Neyland", with a large, stylized flourish extending to the right.

Spencer B. Neyland
Operation Manager/Physicist



TUBE SPECIFICATIONS
 O.D.: Ø1.00 (25.4mm)
 WALL MIN.: .020 (.508mm)
 LENGTH MAX.: 15.72 (399.2mm)
 MAX. VOL.: 11.4 CU.IN. (.19L)
 PRESSURE: 12.4 PSIG MAX.
 (.085 MPa)

BURST PRESSURE >1500 PSIG
 (10.3 MPa)



CONFIDENTIAL

REV		DESCRIPTION	DATE	BY
DRAWN		mm 3/20/08		
DESIGNED		mm 3/24/08		
CHECKED		mm 3/20/08		
PROJ ENG		mm 3/24/08		
REF				
DO NOT SCALE THIS DRAWING				
SCALE		1:1		
SHEET		1 OF 1		

INFORMATION AND DESIGN DISCLOSED HEREIN IS THE PROPERTY OF LND INC. AND ALL PATENT PROPRIETARY DESIGN AND ALL PATENT PROPRIETARY DESIGN RIGHTS ARE EXPRESSLY GRANTED BY CONTRACTUAL AGREEMENT DUBLICATION OF DISCLOSURE TO UNAUTHORIZED PARTIES IS PROHIBITED WITHOUT EXPRESS WRITTEN PERMISSION COMPLIANCE WITH CONTRACTUAL AGREEMENTS DOES NOT IMPLY AN INTENT BY LND TO MAKE THIS DOCUMENT AVAILABLE TO OTHERS OR TO THE GENERAL PUBLIC NOR TO ABANDON ANY OF SAID PROPRIETARY RIGHTS		MATERIAL ST. STEEL #304 BLANK SIZE	LND, INC. 275 FAIRVIEW AVE. #1572 TITLE ENG. FABRICATION SPECIFICATION DRAWING NO. 1-920-0063-00
UNSPECIFIED TOLERANCES FRACTIONS: 1/64 DECIMALS: .XX, .01 DECIMALS: .XXX, .005 ANGLES: 1/2°	UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES SHARP EDGES .005R MAX CONCENTRICITY .005 TYP MACHINED SURFACES 63 R.M.S		



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Battelle PNNL
329 Building, 300 Area
Richland, WA 99352


To:

LND, Inc.
3230 Lawson Blvd.
Oceanside, NY 11572

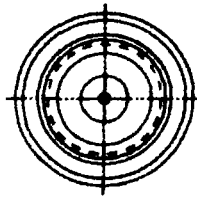
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Sincerely,

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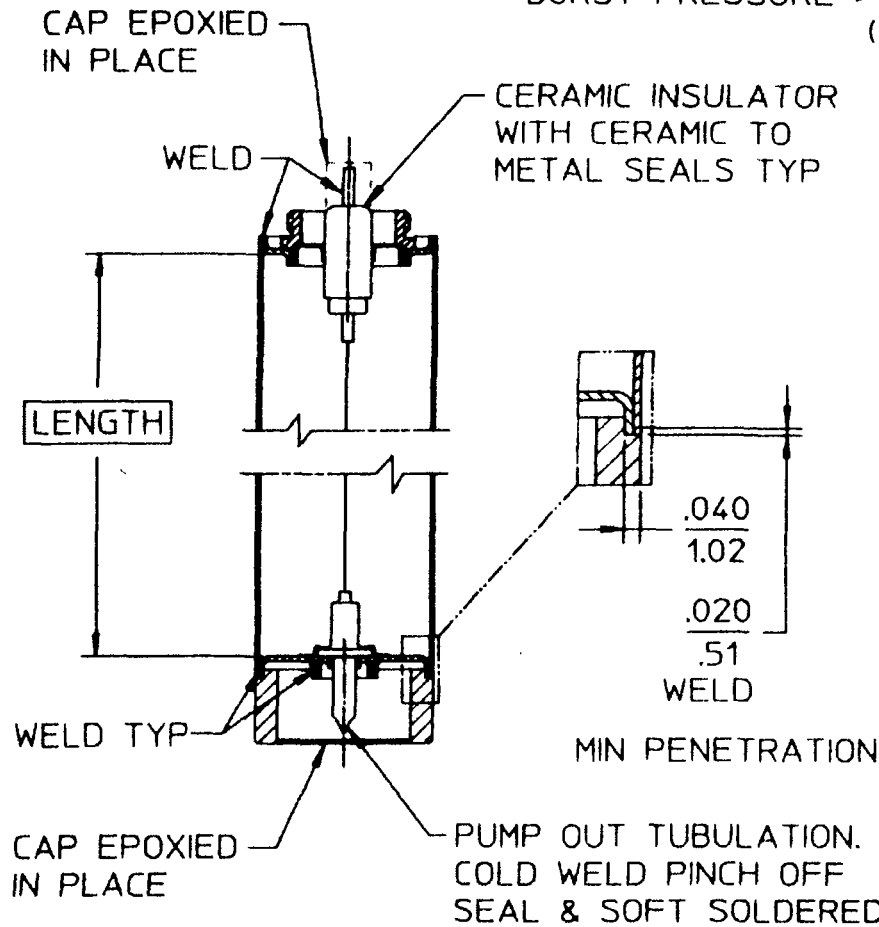


Spencer B. Neyland
Operation Manager/Physicist



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 (.085 MPa)

BURST PRESSURE >1500 PSIG
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MATERIAL
ST. STEEL
#304

BLANK SIZE

UNLESS OTHERWISE SPECIFIED:
 DIMENSIONS ARE IN INCHES
 SHARP EDGES .005R MAX
 CONCENTRICITY .005 TIR
 MACHINED SURFACES 63 R.M.S.

REV.	DESCRIPTION	DATE	FIG.
1	DRAWN <i>Wm</i> 3/20/08		
2	CHECKED <i>Wm</i> 3/24/08		
3	DESIGNER <i>Wm</i> 3/20/08		
4	QUANTITY <i>Wm</i> 3/24/08		
5	PROJ. ENG. <i>Wm</i> 3/24/08		
6	REF		
DO NOT SCALE THIS DRAWING		SCALE 1:1	SHEET 1 OF 1

LND, INC.
 ORANSIDE, NY 11572

TITLE
ENG. FABRICATION SPECIFICATION

DRAWING NO.
1-920-0063-00

UNSPECIFIED TOLERANCES
 FRACTIONS: + .04
 DECIMALS: .XX + .01
 DECIMALS: .XXX + .005
 ANGLES: + .02°

March 4, 2008



U.S. Department
of Transportation

East Building, PHH-30
1200 New Jersey Avenue S.E.
Washington, D.C. 20590

**Pipeline and Hazardous
Materials Safety Administration**

DOT-SP 14662

EXPIRATION DATE: July 31, 2008

1. GRANTEE: Flexcon Industries
Randolph, MA
2. PURPOSE AND LIMITATION:
 - a. This emergency special permit authorizes the one-way transportation in commerce of approximately 5,500 non-DOT specification cylinders containing compressed air at a pressure not greater than 40 psig by motor vehicle. This special permit provides no relief from the Hazardous Materials Regulations (HMR) other than as specifically stated herein.
 - b. The safety analyses performed in development of this special permit only considered the hazards and risks associated with transportation in commerce. The safety analyses did not consider the hazards and risks associated with consumer use, use as a component of a transport vehicle or other device, or other uses not associated with transportation in commerce.
 - c. No party status will be granted to this special permit.
3. REGULATORY SYSTEM AFFECTED: 49 CFR Parts 106, 107 and 171-180.
4. REGULATIONS FROM WHICH EXEMPTED: 49 CFR § 173.302a in that non-DOT specification cylinders are not authorized, except as provided herein; and § 172.301(c) in that the marking requirements are waived.
5. BASIS: This emergency special permit is based on the application of Flexcon Industries dated February 27, 2008, submitted in accordance with § 107.117 and a determination that it is necessary to prevent significant economic loss.

March 4, 2008

6. HAZARDOUS MATERIALS (49 CFR § 172.101):

Hazardous Materials Description			
Proper shipping name	Hazard Class/ Division	Identification Number	Packing Group
Air, compressed	2.2	UN1002	N/A

7. SAFETY CONTROL MEASURES:

a. PACKAGING - Packagings prescribed are approximately 5,500 non-DOT specification fully wrapper fiber reinforced composite gas cylinders with a non-load sharing liner known commercially as pre-pressurized diaphragm expansion tanks. The cylinders are designed to Section X of the ASME Code but are not ASME Code stamped and have a safety margin of 5:1. Additionally, the cylinders are certified to meet the European Pressure Equipment Directive. The cylinders have water capacities between 15 and 120 US gallons (50 liters to 450 liters) as shown on Flexcon Industries drawing titled "FL TANKS" dated February 24, 2007 on file with the Office of Hazardous Materials Special Permits and Approvals.

b. TESTING - Each cylinder must be pressure tested to 125 psig and leak tested utilizing a helium trace gas detection system prior to shipment.

c. OPERATIONAL CONTROLS -

(1) The maximum pressure in each cylinder may not exceed 40 psig during transportation.

(2) Transportation is authorized from Flexcon Industries in Randolph, MA to Flexcon Industries distributors in truckload or less than truckload quantities with no intermediate stops.